

December 11, 1996

To: Gary Bustamente

Gypsy Moth Coordinator for the Monongahela National Forest

From: Dave Curry

Subject: Completion of Gypsy Moth Egg Mass Surveys for Fall 1996

Gypsy Moth Egg Mass surveys for fall 1996 were recently completed. Random 1/40th acre surveys were employed to arrive at the population levels. Any survey sites yielding 12 or more Egg Masses is equivalent to 500 EM/acre, or the point where tree defoliation first begins to be noticeable.

Standard timber compartments were the units surveyed. Fifteen to twenty survey sites were scattered throughout the compartments, yet concentrated in the good GM habitat (oak). Occasionally 2 or more small compartments were combined so that the surveyor could cover more area.

This 1996 survey season is noteworthy for two things. First, due to record rainfalls, storms and floods all year long, access to many areas was limited. Washed out culverts and roads and windthrown timber continuously challenged survey crews, as it did all forest personnel.

Second, GM larvae were once again hammered hard by the fungus, Entomophaga sp. The overall decline of the population that began in early summer 1995 continued into summer 1996. Even some low level populations were affected.

Compartments to be surveyed were prioritized by 3 criteria: a. high oak component; b. history of GM problems; or c. potential problem areas along the leading edge of the GM front, roughly a straight line from Elkins to Marlinton. Surveys to the south and west of this area were done to help establish base line data for future reference.

Normally, defoliation is considered a top priority, but very little was noted this year. One possible GM impacted area located generally between Cheat mountain and Mill Creek

turned out to be mostly beech dieback due to beech bark disease.

Light defoliation was also noted near Frost in Pocahontas county. This was a small area with a borderline population as noted in fall 1995. After a good early hatch and start and some localized pinhole damage, the fungus, Entomophaga, caught up with and nailed the GM larvae during the 4th and 5th instar. No further damage was done, no refoliation occurred, and no treatment is necessary.

Conclusions

Approximately 1700 survey sites were completed in over 100 timber compartments (listed by Ranger District on following page). None of these compartments were found to have any GM populations over 500 EM/ac. Because of that, there probably will be very little GM caused defoliation in July '97 and no intervention projects will be necessary in May '97.

Almost all developed recreation areas on the MNF were also surveyed. Although intervention could be considered at the lower 250 EM/ac. level, all sites came in well below this grade. Included here were Seneca Shadows, Spruce Knob, Island Run, Horseshoe Run, Stuarts Park, Sherwood Lake and several other campgrounds and picnic areas.

Postscript

Annual monitoring of gypsy moth populations on the MNF should be continued. While it is difficult to imagine or predict where the GM may pop up next, it may be even more difficult to guess what the fungus will do. Yes Entomophaga can impact GM populations, but what is the life expectancy of the fungal spores? Can it continue by living in the soil? Will it be there next time? Stay tuned....by monitoring.

Cheat Ranger District

2/3,4/5,6,14,16,17,18,19,20,22,27,28,29,30,33,36,
37,38,44,45,46,47,48,49,50,51,52,57

Greenbrier Ranger District

1,2,3,5,7,8,9,10,12,13,14,83,89,91,92,95,96,99,
108/109,113 116,117,120/121

Marlinton Ranger District

12/69,35,39,40,42,43,49,51,53,55,57,58,61,63,64,
67,68

Potomac Ranger District

14,15,17,20,24,25,26,55,57,62,64,66,67,81,83,84,87,
91,92,95,97

White Sulphur Ranger District

12/13/25,22/23,29,51,55/57,79/81,82/84,95/97

Gauley Ranger District

Fork Mt.,Cranberry river and CG, Williams River to
Tea Creek